

MK-3000 SERIES **CONCRETE SAW** **OPERATOR'S MANUAL**



Revision 200	10.2010
Manual Part No. I66447-OM	

Caution: Read all safety and operating instructions before using this equipment. This parts list **MUST** accompany the equipment at all times.

MK-3000 SERIES

Congratulations on your purchase of a Walk-Behind Concrete Saw. We are certain that you will be pleased with your purchase of MK-3024V (part# 166447), MK3024K (part# 166449), MK-3030V (part# 166448), MK-3030K (part# 166450) MK Diamond takes pride in producing the finest construction power tools and diamond blades in the industry.

Operated correctly, your MK-3000 Series should provide you with years of service. In order to help you, we have included this manual. This owners manual contains information necessary to operate and maintain this machine safely and correctly. Please take a few minutes to familiarize yourself with the machine by reading and reviewing this manual.

If you should have questions concerning your MK-3000 Series please feel free to call our friendly customer service department at 800 421-5830

Regards,

MK Diamond

NOTE THIS INFORMATION FOR FUTURE USE:

MODEL NUMBER:	
SERIAL NUMBER:	
PURCHASE PLACE:	
PURCHASE DATE:	

NOTE: For your (1) one year warranty to be effective, complete the warranty card (including the Serial Number) and mail it in as soon as possible.


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Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Precaution and Operating Instructions could result in injury to yourself and others.

This Operation and Parts Manual has been developed to provide complete instructions for the safe and efficient operation of the MK-3000 Concrete Saw.

Before using this machine, ensure that the person operating the machine has read and understands all instructions in this manual.

SAFETY MESSAGE / ALERT SYMBOLS

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol () and one of three words: **DANGER**, **WARNING**, or **CAUTION**.



DANGER

You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you do not follow directions.



WARNING

You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you do not follow directions.



CAUTION

You **CAN** be **INJURED** if you do not follow directions. It may also be used to alert against unsafe practices.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury. Other important messages are preceded by the word **NOTICE**.



NOTICE

You can cause **PROPERTY DAMAGE** to your machine if you don't follow directions.

The safety labels should be periodically inspected and cleaned by the user to maintain good legibility at a safe viewing distance. If the label is worn, damaged or illegible, it should be replaced. Contact MK Diamond or your dealer for replacement.

SAFETY WARNINGS

SILICA DUST WARNING

Grinding/cutting/drilling of masonry, concrete, metal and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When cutting such materials, always follow respiratory precautions.

CALIFORNIA PROPOSITION 65 MESSAGE

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead-based paints
- Crystalline silica, from bricks and cement and other masonry products
- Arsenic and chromium, from chemically treated lumber

For further information, consult the following sources:

<http://www.osha.gov/SLTC/silicacrystalline/index.html>

<http://www.cdc.gov/niosh/consilic.html>

<http://oehha.ca.gov/prop65/law/P65law72003.html>

<http://www.dir.ca.gov/Title8/sub4.html>

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

RULES FOR SAFE OPERATION



DANGER

Failure to follow instructions in this manual may lead to serious injury or even death! This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the MK-3000 Concrete Saw.

MAINTENANCE SAFETY

- **NEVER** lubricate components or attempt service on a running machine.
- Keep the machinery in proper running condition. Clean the machine after each day's use. Follow instructions for changing accessories. Inspect tool periodically and, if damaged, have repaired by authorized service facility.

SET UP & TRANSPORTATION SAFETY

- **ALWAYS** use caution and follow the instructions when lifting and transporting this machine.
- **ALWAYS** tie down the machine when transporting. **DO NOT** tow this machine behind a vehicle.
- **NEVER** transport with the blade mounted on the machine.
- Lift only from the lift bail.

GENERAL SAFETY



- **DO NOT** operate or service this equipment before reading this entire manual. Read and understand all warnings, instructions and controls on the machine.

- This equipment should not be operated by persons under 18 years of age.



- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.

- **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.
- **NEVER** operate this equipment under the influence of drugs or alcohol.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult to read.
- **ALWAYS** check the machine for loose bolts before starting.



- **ALWAYS** wear proper respiratory, head, ear and eye protection equipment when operating this machine.

- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.



- Turn the "ON/OFF" switch to the "OFF" position prior to connecting the machine to the power source. **NEVER** leave the machine unattended. Turn off electric motor when unattended. Know how to stop the machine quickly in case of emergency. **NEVER** try to stop a moving blade with your hand.

- **NEVER** use a wet blade without adequate water supply to the blade.

- **CAUTION** must be observed while servicing the machine. Rotating parts can cause injury if contacted. Have all service performed by competent service personnel.
- Operate this machine only in well ventilated areas. **ALWAYS** ensure that the machine is on level ground before using.



- **NEVER** operate this machine in an explosive atmosphere.

- Establish a training program and give a copy of this manual to operators of this equipment. If you need extra copies, call TOLL-FREE (800) 421-5830.

SAW BLADE SAFETY



- **ALWAYS** keep area around the machine clear of obstructions and clear the work area of unnecessary people. Keep all body parts away from the blade and all other moving parts.



- Before starting the machine, check that all guards are in position and correctly fitted. **NEVER** allow blade exposure from the guard to be more than 180 degrees. **DO NOT** operate this machine with the transmission guard removed.

- Inspect the blade, flanges and shafts for damage before installing the blade. **NEVER** use damaged or worn blade flanges.
- Inspect the blade, flanges and size shown for each blade size. **DO NOT** exceed maximum blade speed shown, as excessive speed could result in blade breakage. Use **ONLY** blades marked with a maximum operating speed greater than the blade shaft speed. Verify speed and saw drive configuration by checking bladeshaft RPM and pulley diameters and blade flange diameters.
- Use the correct blade for the type of work being done. Use only reinforced abrasive blades or steel center diamond blades and flanges supplied with the saw or manufactured for use on concrete saws. **DO NOT** use carbide-tipped blades. Check with the blade manufacturer if you do not know if blade is correct.
- Make sure the blade and flanges are clean and free of dirt and debris before mounting the blade on the saw. Verify the blade arbor hole matches the machine spindle before mounting the blade. **ALWAYS** mount the blade solidly and firmly. Wrench tighten the arbor nut.
- Make sure the blade is not contacting anything before starting the engine.
- **ALWAYS** cut in a straight line. **DO NOT** cut deeper than 1" per pass with a dry blade. Step cut to achieve deeper cuts. **NEVER** cock, jam wedge or twist the blade in a cut. **DO NOT** grind on the side of the blade.



- **DO NOT** touch a dry cutting blade immediately after use. These blades require several minutes to cool after each cut. **DO NOT** use a blade that has been overheated (Core has a bluish color).

FUELING SAFETY



- **ALWAYS** use caution when handling fuel. Shut off the engine and allow to cool before refueling.

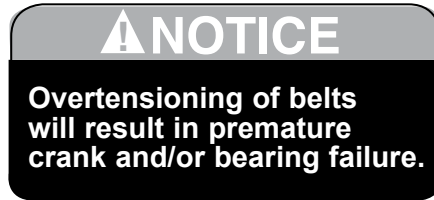
- Move the machine at least 10 feet (3 meters) from the fueling point before starting the engine and make sure the gas cap is on the machine and the fuel can is properly tightened.

OPERATION & SAFETY DECALS

The MK-3000 is equipped with a number of safety decals (Figure I) provided for operator safety and maintenance information. Should any of these decals become unreadable, replacements can be obtained by calling **(800) 262-1575**.



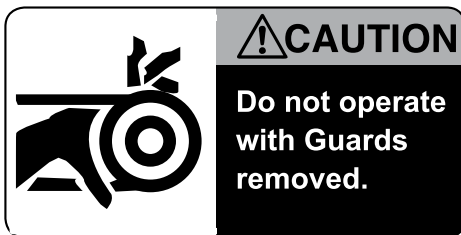
Decal A



Decal B



Decal C



Decal D & E



Decal F



Decal G



Decal I



Decal J

Fig. I MK-3000 Safety Decal Sheet, Part No. I66009

SAFETY DECAL LOCATIONS

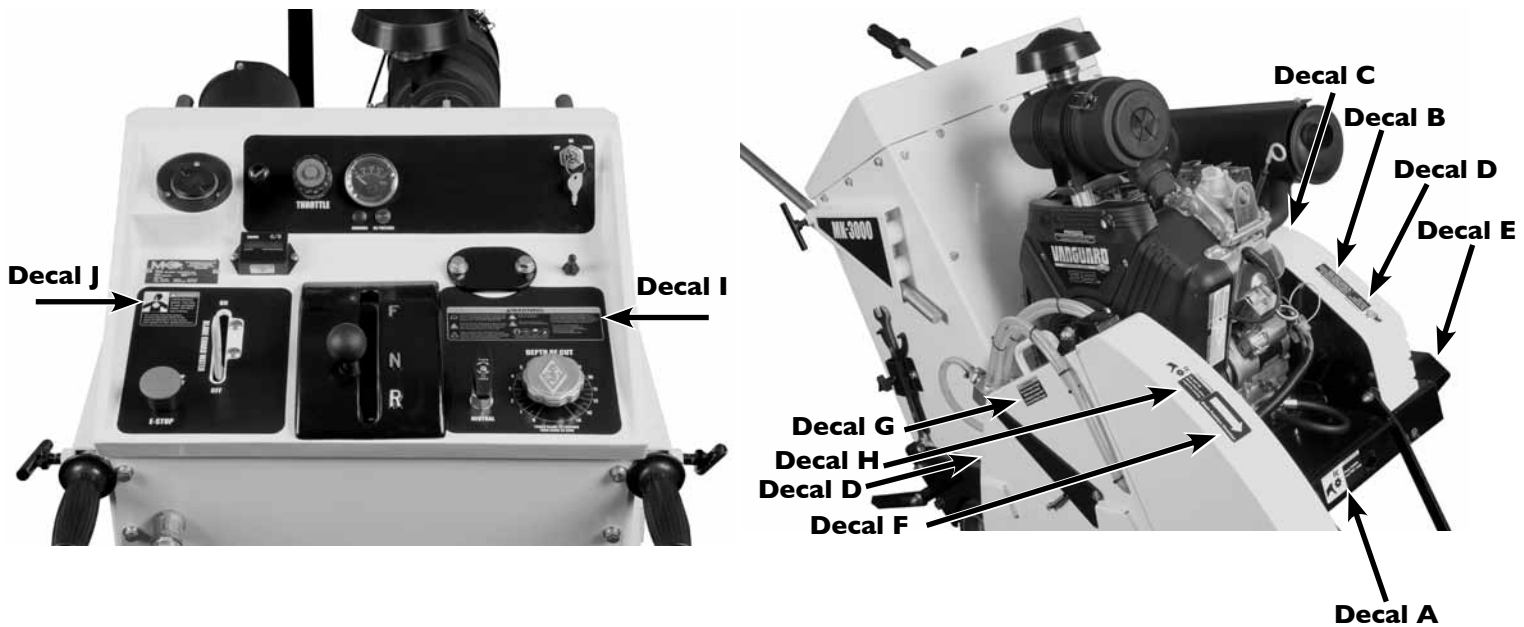
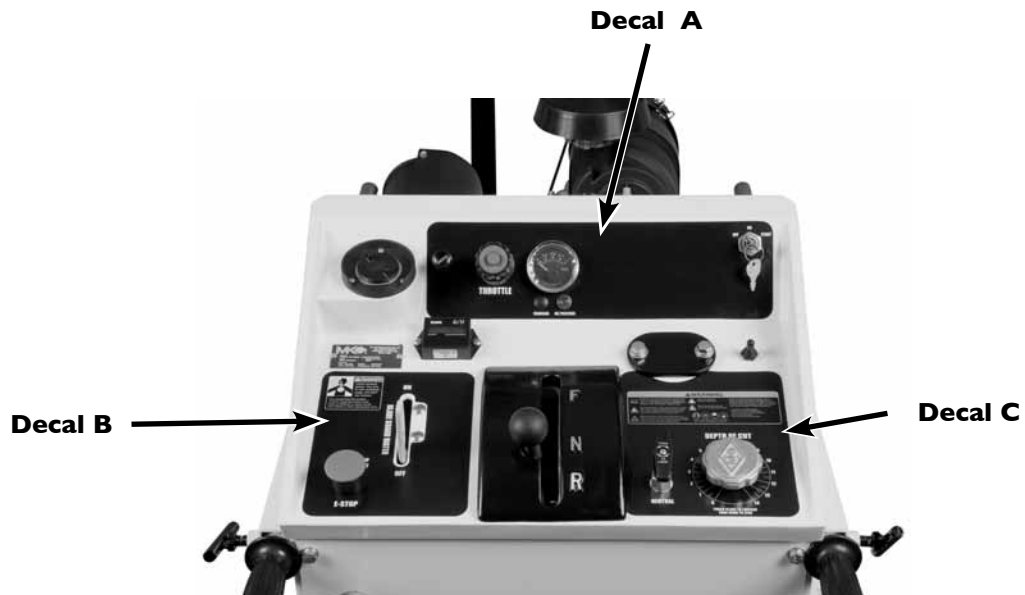


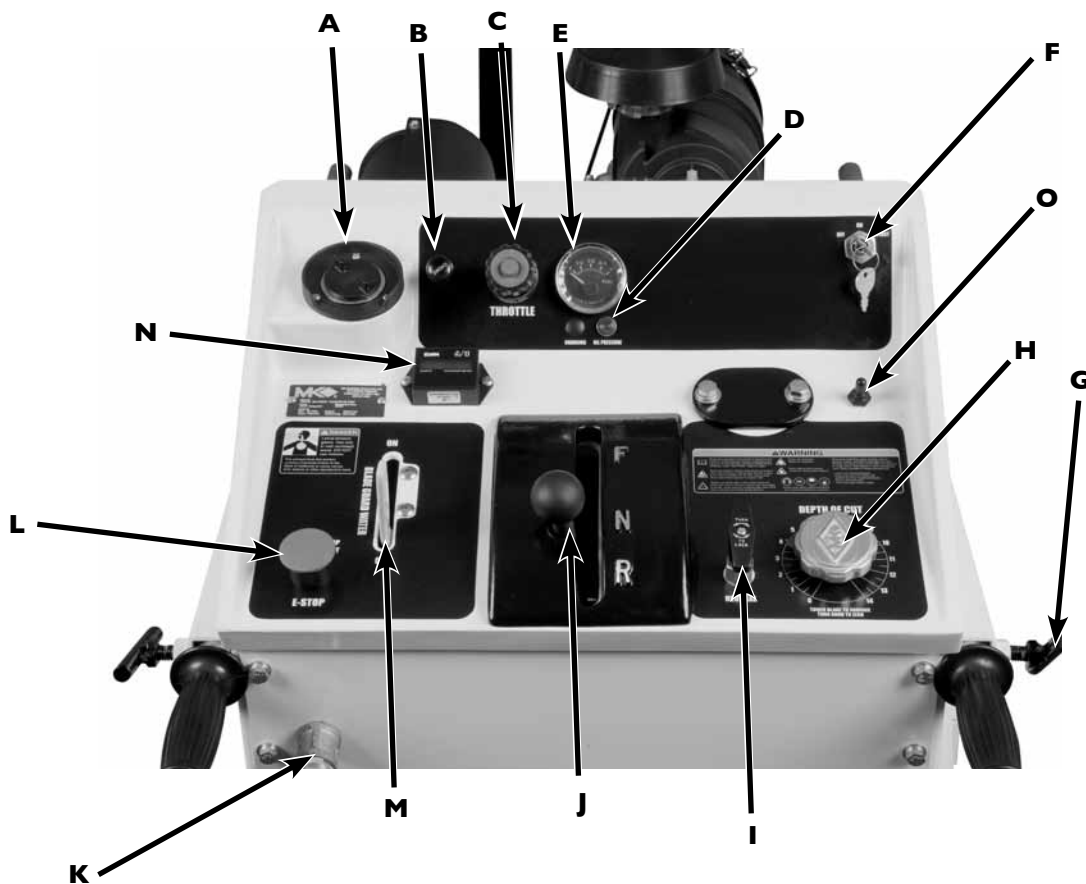
Fig. 2 MK-3000 Safety Decal Locations

Decal	Location	Description
A	Machine Front	Caution Keep Hands and Feet Clear
B	Top of Belt Guard	Caution Do Not Overtension Belts
C	Top of Belt Guard	Caution Do Not Touch Hot Surface
D	Top of Belt Guard	Caution Do Not Operate with Guard Removed
E	Face of Shaft Guard	Caution Do Not Operate with Guard Removed
F	Top of Blade Guard	Blade Rotation Direction
G	Side of Blade Guard	Warning Do Not Change to Larger Blade Guard
H	Top of Blade Guard	Caution Do Not Lift Guard When Engine Running
I	Console	Read Owner's Manual
J	Console	Lethal Gas

CONSOLE DECAL LOCATIONS

**Fig. 3 MK-3000 Console Decal Locations**

Decal	Location	Description
A	Console Top	Instrument Label
B	Console Left	Console Label Left
C	Console Right	Console Label Right

CONSOLE CONTROL DESCRIPTIONS**Fig. 4 MK-3000 Console Controls**

Object	Name	Function
A	Fuel Tank Fill	Fill the fuel tank at this location.
B	Choke	Use when cold starting.
C	Engine Throttle	Controls engine speed.
D	Oil Pressure Light	Indicates low oil pressure when illuminated.
E	Fuel Gauge	Shows the level of fuel in the fuel tank.
F	Keyed ON-OFF Start	Use to start engine.
G	T-Handle Knob	Use to tighten operator grip handles.
H	Depth Indicator	Displays cutting depth.
I	Engage Handle	Engages Transmission.
J	FNR Handle	Used to Set Direction of Saw (Forward/Neutral/Reverse).
K	Water Inlet	Hook-up for standard water hose.
L	E-Stop	Stops down engine in an emergency!
M	Water Lever	Controls water flow to Blade Guard.
N	Engine Tachometer/ Hour Meter	Shows the engine RPM's (running) and Engine Hours (stopped).
O	Blade Raise & Lower Switch	Increase & decrease the blade depth

SAW FEATURES

The MK-3000 Heavy-Duty Concrete Saw has been engineered for operator convenience, improved accessibility for maintenance and better control during operations. The MK-3000 has been designed for both front and rear pivoting and has easily removable rear and side panels to provide easy accessibility for maintenance.

- Ergonomic FNR traverse control
- Quick release, auto latching bayonet mount blade guard
- 1-7/16 blade shaft with heavy duty pillow block bearings
- Three position adjustable solid steel handle bars
- Blade guard has garden hose style connector for quick disconnecting
- Rigid frame front pointer with high visibility guide wheel for accurate tracking
- Instrumentation includes engine tach, fuel level and hour meter
- Indicator lights for oil pressure and charging system
- Depth of cut indicator
- Valve control for delivery of water to blade guard
- Saw designed for left or right side mounting of blade and blade guard
- Blade guard water distribution system designed for optimal blade cooling
- Front pivot
- Removable rear and lower front panel for easy service
- 7 3VX V-belt drive from engine to center shaft
- Hand wheel for positive adjustment of cutting depth
- Wide front wheel base increases stability and allows ramp loading/unloading
- Eaton model 6 Hydrostatic transmission coupled to an MK trans-axle
- Transmission can be disengaged from axle to allow saw to be pushed manually
- Travel speed 0-220 FPM forward, 0-100 FPM reverse
- Neutral start switch to prevent starting with transmission in gear
- Made in the U.S.A.

ENGINE SPECIFICATIONS

Model	MK-3024V	MK-3024K
Engine	Vanguard (Gas)	Kohler (Gas)
Power	V-Twin Big Block OHV 35	Command Pro CH980
Blade Capacity	24"	24"
Depth of Cut	9-1/2" (241 mm)	9-1/2" (241 mm)
Weight	650 lbs. (295 kg)	650 lbs. (295 kg)
Part #	166447	166449
Model	MK-3030V	MK-3030K
Engine	Vanguard (Gas)	Kohler (Gas)
Power	V-Twin Big Block OHV 35	Command Pro CH980
Blade Capacity	30"	30"
Depth of Cut	12-1/2" (318 mm)	12-1/2" (318 mm)
Weight	650 lbs. (295 kg)	650 lbs. (295 kg)
Part #	166448	166450
General Specifications		
Arbor	1" with 3/8" Drive Pin	
Blade RPM	1,900	
Fuel Capacity	5 gal	
Travel Speed	Travel speed 0-220 FPM forward, 0-100 FPM reverse	
Starting System	Electric	
L x W x H	50" x 29" x 42"	
L x W x H (mm)	1,270 x 737 x 1,067 mm	
Handle Extension	22" (559 mm)	

MODEL SPECIFICATIONS

	VANGUARD ENGINE		KOHLER ENGINE	
MODEL #	3024V	3030V	3024K	3030K
PART #	166447	166448	166449	166450

STANDARD SAW SPECIFICATIONS

BLADE GUARD		
CAPACITY	24"	
	(610 mm)	
BLADESHAFT RPM	1900	
MAXIMUM DEPTH OF CUT	9.5	
	12.5	
ARBOR SIZE	1" (25.4 mm) with 3/8" drive pin, blade can be mounted on either side of shaft	
BLADE SHAFT	1-7/16" (36.5 mm) diameter	
BLADE SHAFT BEARING	Dual Row 1-7/16" Pillow Block Roller Bearings	
BLADE SHAFT DRIVE	Seven 3VX Notch V-Belts, optimized for correct blade shaft RPM at peak engine power	
BLADE CONTROL	Electric leadscrew for positive adjustment of cutting depth	
BLADE COOLANT	Blade guard uses "ride on the blade" water tubes for superior water delivery and blade cooling	
AXLES	FRONT REAR	1" (25.4 mm) diameter 1" (25.4 mm) diameter
WHEELS	FRONT REAR	Front Wheel 6" x 2-1/2" wide rubber with 1" ball bearings with lubrication fittings. Rear Wheel 8" x 2-1/2" wide solid rubber
TRANSMISSION	Hydrostatic Transmission with freewheel neutral control. Travel speed 0-220 FPM Forwards, 0-100 FPM Reverse. FNR Handle controls forward/neutral/reverse. Neutral safety start switch.	
CHASSIS	Heavy-duty rigid box and rib main frame construction. Removable Service Panels for ease of maintenance.	
CONSOLE	Console with Tachometer/Hour Meter, Fuel Level Gauge, indicator for Oil Pressure and Keyed Start Switch	
POINTER	Adjustable front and rear pointers	
HANDLE BARS	Three positions	

INSTRUCTIONS FOR CHANGING BLADE SPEED**WARNING**

Do not exceed blade shaft speed shown for each blade size. Excessive blade speed could result in blade failure and serious personal injury.

**NOTICE**

Changing Blade Guard size **MUST** be accompanied by changing Pulleys to achieve the correct blade speed.

KIT	INCLUDES	BLADE SHAFT SPEED	BLADE SPEED (FPM)	
			Size	FPM
24"	24" Blade Guard Assembly 5" Flange Set 4.75 Blade Shaft Pulley 7 3VX V-Belt	1900 RPM	18"	9,000
			20"	10,000
			24"	11,900
30"	30" Blade Guard Assembly 5" Flange Set 4.75 Blade Shaft Pulley 7 3VX V-Belt	1900 RPM	26"	13,000
			28"	14,000
			30"	14,900

**NOTICE**

As shown on the chart, some blade guards accept more than one size blade.

BLADE GUARDS AND BLADE SIZES	
BLADE GUARD	BLADE SIZE THAT CAN BE USED WITH BLADE GUARD
24"	Uses 18," up to 24" blade
30"	Uses 24" up to 30"



Fig. 5 Blade Guards

PRE-OPERATION CHECKLIST

**WARNING**

Before leaving our factory, every machine is thoroughly tested. Follow instructions strictly and your machine will give you long service in normal operating conditions.



Before starting up the machine, make sure you read this entire Operation Manual and are familiar with the operation of the machine.

Machine Cold

1. Check engine oil. See Engine Owner's Manual for type & quantity.
2. Connect battery cables.
3. Check hydrostatic transmission fluid level.
4. Check the engine air cleaner.

SCHEDULE MAINTENANCE QUICK REFERENCE

1-2 Hour Operation Checklist

**WARNING**

ALWAYS locate machine on a level surface with the engine "OFF" and the ignition switch set in the "OFF" position before performing any maintenance. Let the machine cool down prior to any service. Ensure the parking brake is set.

1. Check the engine air cleaner hose clamps. Tighten as required.
2. Tension the blade drive V-belts. **DO NOT** overtension.

**WARNING**

Before performing any maintenance, **ALWAYS** locate machine on a level surface with the engine "OFF" and the ignition switch set in the "OFF" position.

Service Daily

1. Check engine oil level.
2. Check blade guard for damage.
3. Check hoses and clamps for damage or looseness. Tighten or replace as necessary.
4. Check air cleaner for restriction. Replace at regular intervals air filters.

Other time interval service

See the Maintenance Schedule Table on Page 24.

**NOTICE**

Before mounting the blade, machine should be turned “OFF”. Clean the blade collars and stub shaft.

BLADE MOUNTING INSTRUCTIONS

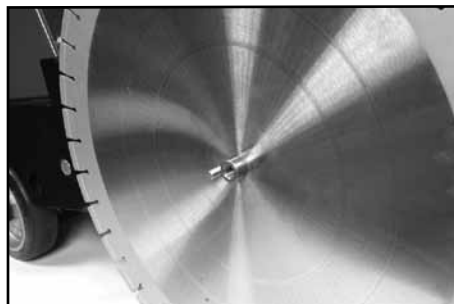
1. Remove Blade Guard.
 - A. Unscrew the hose fitting to disconnect hose (Figure 6).
 - B. Hold the Blade Guard by the handle (Figure 7). Release the inner latch.
 - C. Pull the Blade Guard up and off the Saw.

**Fig. 6 Unscrew Hose Fitting****Fig. 7 Hold Blade Guard**

2. Remove arbor bolt. If blade is mounted on right side saw, the bolt has left hand threads. To remove turn clockwise. If the blade is mounted on left side of saw, nut has right hand threads. To remove, turn counter-clockwise (Figure 8).
3. Remove outer flange (Figure 9).

**Fig. 8 Remove Arbor Bolt****Fig. 9 Remove Outer Flange**

4. Install new blade (Figure 10).
5. Install the outer flange on to the blade flange (Figure 11).

**Fig. 10 Install New Blade****Fig. 11 Slide Outer Flange in place**

BLADE MOUNTING INSTRUCTIONS CONTINUED

6. Tighten the arbor bolt (Figure 12).
7. Install the blade guard in place. Make sure that the guard locks in place and connect the hose (Figure 13).

**Fig. 12 Tighten Arbor Bolt****Fig. 13 Install Blade Guard****WARNING**

Observe the rotation arrow on blade and **DO NOT** exceed maximum RPM stamped on the blade. To set proper RPM, consult the Blade Guards and Blade Sizes Table on page 15.

**NOTICE**

To meet ANSI safety standards, larger diameter blade collars are required for large diameter blades. Information is available upon request.

**NOTICE**

We recommend the use of MK Diamond blades with this saw.

STARTING ENGINE



NOTICE

Read the engine instructions manual before starting.



WARNING

Be sure blade is unobstructed and not resting on ground.



WARNING

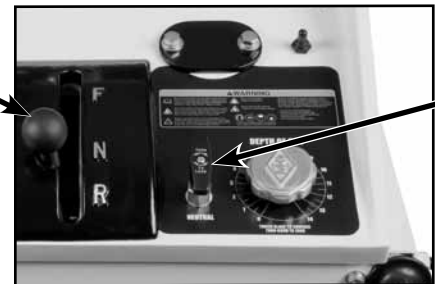
Be sure hands and feet are clear of blade.

1. Check engine oil. Add oil if low.
2. Check fuel level. Add fuel if low.
3. Check cooling air intake areas and external surfaces of engine. Make sure surfaces are clean and unobstructed.
4. Check that air cleaner components and all shrouds, equipment covers and guards are in place and securely fastened.

STARTING INSTRUCTIONS

1. Verify that E-Stop is pulled out.
2. Place FNR handle in **NEUTRAL**. Engine will not start unless FNR handle is in neutral.
3. Verify the transmission is in **NEUTRAL**.
Engagement handle in unlocked and fully down position.
4. Pull throttle handle out half-way.
5. Close choke by pulling choke button to full out position.
6. Start engine by rotating starter switch to the right.

FNR
Handle



Engagement
Handle

Fig. 14 Pull Engagement Handle



NOTICE

DO NOT crank engine for more than 30 seconds at a time. If engine fails to start, wait about 2 minutes between cranking periods to prevent starter from overheating.

8. After engine starts, push choke button in as required for smooth running.



NOTICE

Allow engine to warm up at least 3 minutes before applying load.

9. When engine is warm, pull throttle out to maximum.
10. To stop engine, push throttle to idle, rotate ignition switch to "OFF" position.



NOTICE

If the engine has been running hard and is hot, do not shut engine off abruptly. Cool engine by removing load and allowing engine to run idle for 3 to 5 minutes.

SAW GUIDE ALIGNMENT AND ADJUSTMENT**WARNING**

This operation is performed with the engine “OFF”!

The front and rear pointers are set in line at the factory. However, the pointers should be checked for proper alignment with the blade after every use. The following are the procedures for aligning the pointers with the blade, with the engine shut off.

1. Using a straight edge, carefully mark a line 12 feet long on a smooth level concrete surface.
2. Place the saw parallel to the line. Lower the blade and center it over the line.
3. **FRONT:** With the blade centered over the line and the saw frame parallel to the line, lower the front pointer assembly and position the pointer over the line.
4. **REAR:** With the blade centered over the line and the saw frame parallel to the line, loose the pointer and adjust up or down and ensure that it touches the line.
5. Finally, roll the saw along the entire length of the line. The saw should lead off no more than 6 inches to the left in 12 feet of forward travel. Adjust the pointer in or out if the lead-off is outside this parameter.
6. Secure hardware.

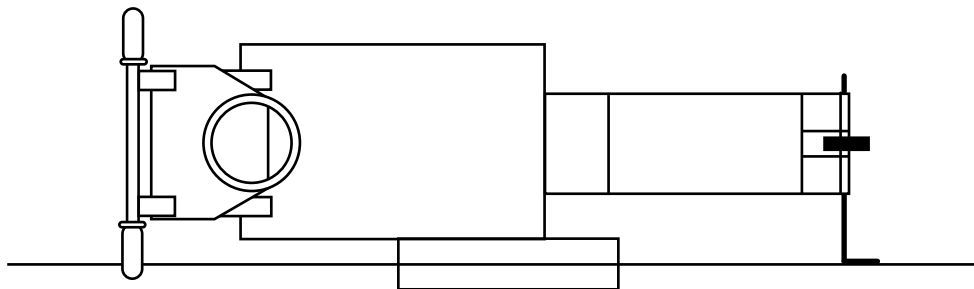


Fig. 15 Pointer Alignment

MANEUVERING THE SAW



WARNING

The blade is spinning whenever the saw is running. Raise the blade as high as possible when maneuvering so that the blade will not strike the pavement.

DRY CUTTING

Dry cutting blades have been specially designed for use with concrete saws. Ensure that the blade you are using is clearly marked for dry cutting.

When dry cutting, it is important to keep the air filter clean. Check the condition of the filter at least every four (4) hours of operation. Clean the pre-filter (wash in soapy water and re-oil) and change the paper filters as soon as it becomes clogged. Concrete dust is very abrasive and will quickly damage internal engine parts, causing loss of compression and eventual engine failure.

Saw only as deep as the specifications and job conditions require. Remember airflow helps to cool the blade during dry cutting. Cutting too deep with one pass, or exerting excessive forward or side pressure can be dangerous. Step cut in increments of 1 inch (25 mm) or less, for the best results.

If reinforced abrasive blades are used for cured concrete, it is usually better to saw only 1 inch deep per pass. If deeper cuts are required, cut in multiple passes.

Thinner Diamond Blades are especially advantageous when cutting dry.

WET CUTTING

The water used on the blade is to provide coolant during cutting and to flush the concrete cutting from the cut.

ENGAGING THE DRIVE UNIT

This saw is driven by a hydrostatic transmission. To engage the transmission, **PULL** the Engagement Handle up and turn to either direction to lock (Figure 14). To disengage the transmission, twist the Engagement Handle and **PUSH** down.



NOTICE

DO NOT engage the unit unless directional FNR Handle (Figure 14) is on **NEUTRAL**.

SPEED CONTROL-LEVER USE AND ADJUSTMENT

Move the saw forward by pushing the lever away from the operator and move the saw in reverse by pulling the lever toward the operator. The further you push this lever, the faster the saw travels.

WATER HOOK UP

Prior to starting the engine, you should hook up the water hose to the Water Inlet (Figure 16) and visually inspect it to make sure that water is flowing to the blade. Hook up the hose to the the unit and turn on the water source. Open the water valve. Next, lift the front of the blade guard and visually inspect the make sure water is flowing out of each of the tubes. If either of the holes is blocked, flush impurities from the tube.



NOTICE

Water flow volume can be metered by opening the water valve partially (Figure 17).

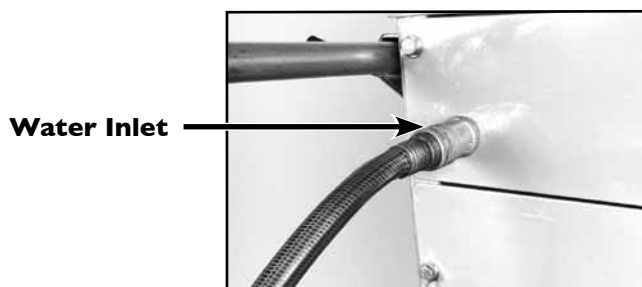


Fig. 16 Inlet attach Hose to Water

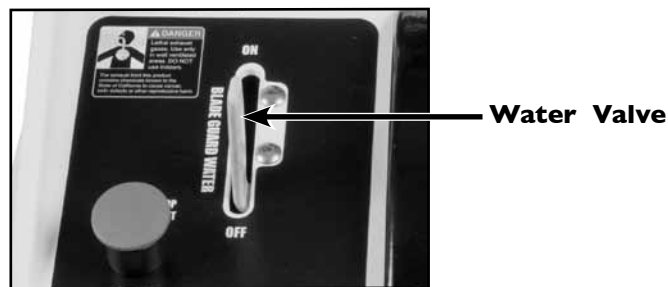


Fig. 17 Partially open Water Valve

DEPTH INDICATOR

The saw is equipped with a Depth Indicator. The Depth Indicator (Figure 18) tells you approximately how deep you are in the cut. To set the indicator, you need to first lower the blade until it is just touching the ground and then rotate the knob to 0.



Fig. 18 Depth Indicator Knob

ENGINE

The operation and life of the engine depends on proper maintenance. Do not start engine until engine pre-check is complete. The engine pre-check consists of checking the oil, fuel level, air filter and greasing the wheel, axle, drive unit and arbor bearings. Basic engine maintenance is shown in Maintenance Schedule Table on the next page. For more detailed information, please refer to the Engine Operator Maintenance Manual and Warranty provided with the saw.



NOTICE

When breaking-in a new saw, we recommend running the engine for one hour with no load prior to actual use on the job.

AIR CLEANER

Due to the dusty conditions created by sawing, it is essential to check the engine air cleaner element daily. Remove the element and shake out the accumulated dust and dirt. Wipe out dirt from the inside cover and from the housing. Check the engine manual for washing instructions. Stocking replacement filters is strongly recommended.

ARBOR, AXLE, DRIVE UNIT AND WHEEL BEARINGS

Bearings should be greased according to the Maintenance Schedule Table on the next page.



WARNING

DO NOT inspect when the engine is running.

Use of high quality detergent oil of API (American Petroleum Institute) service class SF or SG. Select the viscosity based on the air temperature at the time of operation. For temperatures below 0°F, 5W-20 or 5W-30 oil is recommended. For temperatures above 0°, 10W-30 or 10W-40 oil is recommended. Check your engine manual for other recommendations.

HYDROSTATIC DRIVE UNIT

The fluid shipped in your hydrostatic transmission is a fluid having a viscosity equivalent to SAE 20W20. Mobil fluid 300 or any other oil equivalent to SAE 20W20 is preferred by Eaton Transmission. The expansion tank is marked for proper fluid level. It should be checked when unit is cold. **DO NOT** allow the unit to run low on oil. If the unit is low, you can add oil by removing the cap (Figure 19).



Expansion Tank Cap

Fig. 19 Expansion Tank Cap

MAINTENANCE SCHEDULE

MAINTENANCE SCHEDULE	DAILY	25 HOURS	50 HOURS	250 HOURS
Check Oil Level	●			
Check Air Filter	●			
Check Air Intake, Clean if Necessary	●			
Grease Blade Shaft Bearings	●			
Grease Front Wheel Bearings		●		
Grease Rear Wheel Pillow Blocks		●		
Grease Front Axle Journal Bearings		●		
Check Transmission Fluid, Add if Low		●		
Check Power Unit Fluid, Add if Low		●		
Change Oil		●		
Service Air Cleaner Element			●	
Change Oil Filter			●	
Inspect Fuel Filter, Replace if Dirty				●
Inspect Spark Plugs and Ignition System				●
Inspect Cooling System and Clean				●
Inspect Starting Motor				●

* See Engine Manual for specific engine maintenance information and schedule.

TROUBLESHOOTING

When trouble occurs, be sure to check the simple causes which, at first, may seem too obvious to be considered. Refer to the table below for problems and their possible causes.

TRANSMISSION	Cause	Loose Transmission Linkage	Oil Level	Cooling Fan	Water in Oil Reservoir	Dirty Cooling Fans	Loose Drive Chain
	Problem						
	Transmission jerky when starting	X	X				X
	Transmission operates in one direction	X					
	Transmission operating hot	X	X	X		X	
	Oil color is black			X		X	
	Oil color is milky				X		

ENGINE	Cause	No Fuel	Improper Fuel	Dirt in Fuel Line	Fuse Burned Out	Incorrect Oil Level	Dirty Air Filter	Faulty Spark Plugs
	Problem							
	Will not start	X		X	X		X	X
	Hard starting	X	X	X			X	X
	Stops suddenly	X		X		X	X	
	Lacks power		X	X		X	X	X
	Operates erratically		X	X			X	X
	Knocks or pings		X					X
	Skips or misfires			X			X	X
	Back fires			X			X	X
	Overheats			X			X	X
	High Fuel Consumption						X	X

OTHER	Cause	Improper Blade for the Application	Improper Belt Tension	Damage Caused by External Objects
	Problem			
	Reduced blade life	X	X	
	Excessive belt wear		X	X

ACCESSORIES, ORDERING AND RETURN INFORMATION

Ordering Information

You may order MK Diamond products through your local MK Diamond distributor or, you may order direct from MK Diamond.

NOTE: There is a \$25.00 minimum order when ordering direct from MK Diamond. All purchases must be made using VISA or MasterCard.

When ordering direct from MK Diamond, please have the following information ready before calling:

- The Model Number of the machine
- The Serial Number of the machine
- Where the saw was purchased and when
- The Part Number for the part(s) being ordered
- The Part Description for the part(s) being ordered

All parts may be ordered by calling toll free to **(800) 421-5830** or **(310) 539-5221** and asking for Customer Service. For technical questions, call **(800) 474-5594** or **(310) 257-2845**.

Return Materials Policy

To expedite the service relative to the return of a product purchased through MK Diamond, please observe the following:

NOTE: When returning items, they must have been purchased within the previous twelve (12) months.

- Have the Model Number of the saw
- Have the Serial Number of the saw
- Have the location of where the saw was purchased and when
- Contact Customer Service for approval to return the item(s)
- Follow the packaging instructions in the following section
- Ensure your item(s) are prepaid to the destination

For returned items, call toll free to **(800) 421-5830** or **(310) 539-5221** and asking for Customer Service. For technical questions, call **(800) 474-5594** or **(310) 257-2845**.

Packaging Instructions

- Remove the Blade Guard and Support Angle Assembly
- Dry the saw before shipping
- When packing, include the following: MK-4000, Diamond Blade and Blade Guard
- Package the part in its original container or one of comparable size
- Ensure all parts are secured in the packaging to prevent moving

Authorized Service Centers

For quicker repair time, you may contact MK Diamond Customer Service, toll free at **(800) 421-5830** or **(310) 539-5221** for the Authorized Service Center closest to you. For technical questions, call **(800) 474-5594**.

CONTACT

Please contact MK Diamond Products, Inc. Customer Service Department with any questions you might have regarding distributors, parts or service.

Telephone: **(800) 845-3729**

Fax: **(310) 539-5158**

E-mail: **Customer_Service@MKDiamond.com**

Customer Service Hours: **Monday through Friday, 6AM-5PM PST**

**MK Diamond Products, Inc.
1315 Storm Parkway
Torrance, CA 90501**

MK DIAMOND PRODUCTS, INC. LIMITED WARRANTY

MK DIAMOND PRODUCTS, INC. will guarantee every machine they build, to be free from defects in material and workmanship for (1) one year from date of purchase. The obligation of MK DIAMOND PRODUCTS, INC. under this warranty is limited to the repair or replacement of any parts which, under normal use, prove to be defective in material or workmanship. The parts involved or the unit in question should be returned to MK DIAMOND PRODUCTS, INC. or to a point designated by us, transportation prepaid.

This warranty does not obligate us to bear the cost of labor or transportation charges in connection with replacement or repair of defective parts. Likewise, it shall NOT apply to any unit which has been subjected to misuse, neglect or accident. This warranty does NOT apply to any machine which has been repaired or altered outside our factory.

This warranty does NOT obligate MK DIAMOND PRODUCTS, INC., with respect to items not of our manufacture, such as engines, motors, hydraulics, etc., which are subject to their own guarantees and warranties.

We shall in no event be liable for consequential damages or contingent liabilities arising out of failure of any equipment or parts to operate properly.

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MK Diamond may have patents, patent applications, trade marks, copyrights of other intellectual property right covering this product in this document.

This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

The information and specifications included in this publication were in effect at the time of approval for printing.

MODEL MK-3000 SERIES
OPERATOR'S MANUAL



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